

ABSTRACTDRIVE MECHANISMS FOR VALVE ACTUATORS

The present invention provides a motorized valve actuator wherein the drive
5 from the motor to the output shaft of the actuator is via a worm and worm wheel or
other gear mesh which is incapable of being back driven, the actuator having an
alternative manual drive, the manual drive comprising a hand wheel and a clutch and
lever to change from motor power drive to hand drive mode, the actuator further having
an intermediate shaft between the motor and output shaft, the hand wheel being carried
10 by or at least operatively linked to the intermediate shaft to drive the intermediate shaft,
the clutch mechanism being associated with/ mounted on the intermediate shaft, the
intermediate shaft being positioned between the motor and the worm/ worm wheel drive
whereby the clutch mechanism associated with/ mounted on the intermediate shaft
operates substantially freely when the lever is operated to bring the actuator into hand
15 drive mode, the output shaft torque generated by the previous motor powered run and
locked into the output shaft by the non-back driving worm/worm wheel mesh not being
locked into the clutch mechanism.